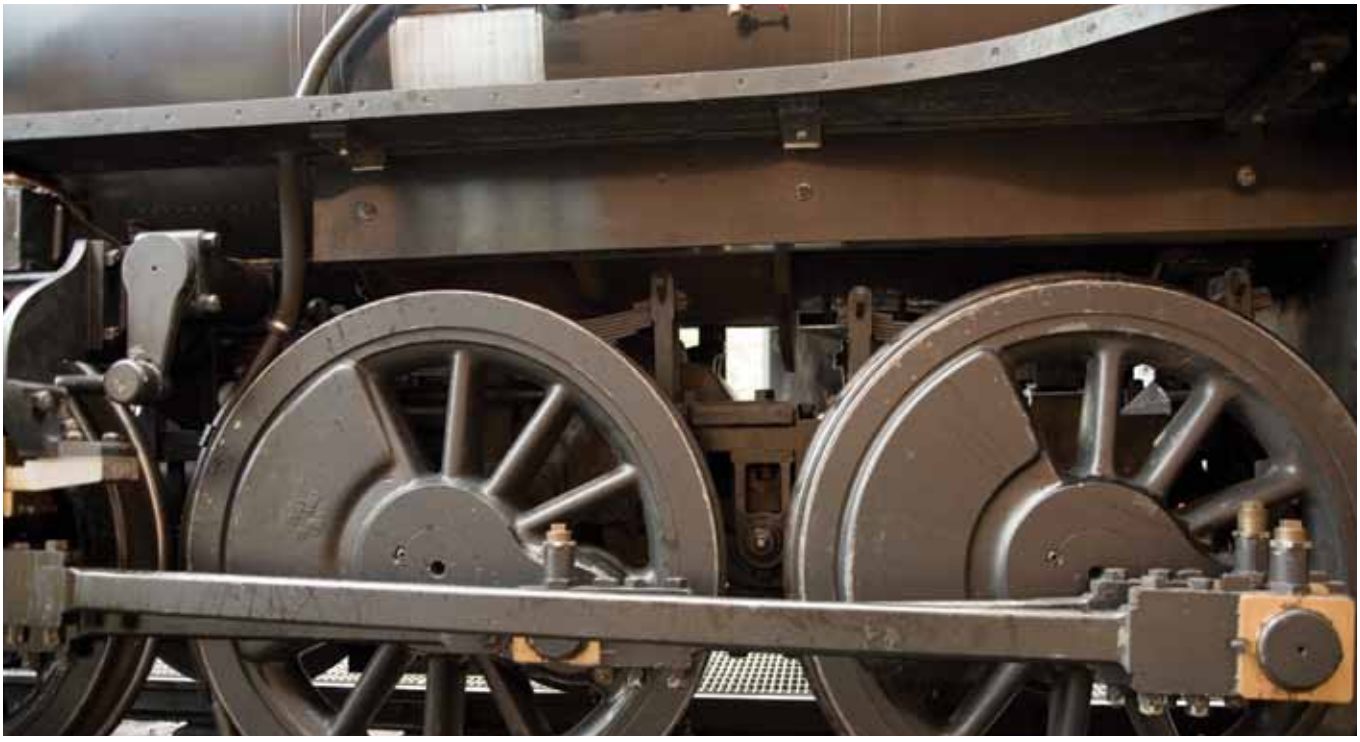
the Henry Ford®

National Endowment for the Humanities

Landmarks of American History and Culture Workshops for School Teachers:

America's Industrial Revolution at **The Henry Ford**



Sample K-12 lesson plans from participant of 2010
America's Industrial Revolution at **The Henry Ford**

NATIONAL ENDOWMENT FOR THE Humanities

the Henry Ford®

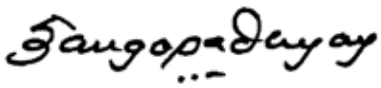
Henry Ford Museum® ■ Greenfield Village® ■ IMAX® Theatre ■ Ford Rouge Factory Tour® ■ Benson Ford Research Center®

The story of **America's Industrial Revolution** is an epic tale, full of heroes and heroines, villains and vagabonds,accomplishments and failures, sweated toil and elegant mechanisms, grand visions and unintended consequences. How did the United States evolve from a group of 18th century agricultural colonies clustered along the eastern seaboard into the world's greatest industrial power? Why did this nation become the seedbed of so many important 19th century inventions and the birthplace of assembly-line mass production in the early 20th century? Who contributed? Who benefited? Who was left behind?

At The Henry Ford in Dearborn, Michigan, school teachers from across the country explored this story with university scholars and museum curators during two week-long teacher workshops supported by the National Endowment for the Humanities.

Workshop participants spent mornings discussing their passion for American history with distinguished university professors, mid-days on field trips to more than a dozen historic farms, mills and laboratories, and afternoons planning activities for their students. They developed methods for incorporating various senses and learning styles into new lesson plans that bring **America's Industrial Revolution** out of the books and into living history. This booklet contains samples of those lesson plans.

In Education,



Paula Gangopadhyay
Director of Education, The Henry Ford
Project Director, NEH Teacher Workshop

2010 NEH Project Staff

Paula Gangopadhyay	Director of Education
Dorothy Ebersole	Curator of Education
Mary Wyatt	Associate Curator of Education
Marc Greuther	Chief Curator
Bob Casey	Curator of Transportation
Jeanine Head Miller	Curator of Domestic Life

Lesson plans created by participants of the 2010 NEH Landmarks of American History Workshop for School Teachers, America's Industrial Revolution, at **The Henry Ford**.

2010 Participants for *America's Industrial Revolution* at The Henry Ford

June Workshop Participants

"The BFRC was a well-spring of fantastic artifacts and documents. The photographs and data collections on the homes in the village are remarkable."

July Workshop Participants

"Everything you offer, seeing, hearing, etc., all this can be brought back to the classroom."

"They are all well-constructed, user-friendly. They make history make sense. History is not always presented in such an intuitive way."

Lesson Plans provided by the Participants of the 2010
America's Industrial Revolution at The Henry Ford

Table of Contents

These lesson plans have been created by the 2010 NEH workshop participants. Lesson plans have been minimally edited for formatting purposes only. The content and images used in the lesson plans are solely from the users and may not be from The Henry Ford's collection.

Lesson Plans for Elementary Grades

America's Greatest History Attraction®

Elementary Lesson Plan 1

Ramona Bogerty, Van Zile Elementary, Detroit, MI

Title of the Lesson: I'll Make the Sandwiches

Grade Level: 3-5

Overview: The intricate design and complexities of sandwich making can be as fascinating to students as the Industrial Revolution was to the adults who created machinery used in the upward spiral which enhanced the simplicity of eating a sandwich that one made.

Central Question: What processes did you need to undertake to make the jam/jelly sandwich that you are eating prior to 1860, in 1890, 1900, 1920, 1940, 1960 and today (2010)?

Learning Objectives: Students will learn

1.What everyday life prior to1860 was like

2. How the Industrial Revolution changed life

3. What the process of making a sandwich was prior to 1860

Assessment Tools: A) Group Presentation using Power Point Attachment B) Individual Exhibit Builder as determined by teacher.

Key Concepts: Primary source, milling, working farm, plow, irrigation, canning, vines, churn, field rotation, wheat, chaff, picking garden, smokehouse, harvest, firewood, process, water wheel and Industrial Revolution.

Evidence Sources: Field Trip to *Greenfield Village* at **The Henry Ford**, reading or retelling of The Little Red Hen or a similar story to it.

Time Frame: Three – 40 minute lessons
One – Field Trip, **The Henry Ford** (*Greenfield Village*)

Instructional Sequence: Teacher Note: Prior to this activity; verify that you do not have any students with food allergies to products to be used. Attachments should be copied prior to the lesson.
Pre-visit Anticipatory Set- Pass out to each child ¼ of a sandwich with jelly spread on it. Divide students into groups of five, direct them to describe/list the steps used to make a sandwich at home. Allow them to record their responses (steps) on sheet entitled, Let's Make a Sandwich 2010 (Attachment A).
Collect sheets and display for future reference (after the trip).
Develop the lesson by reading the story. Ask students, what differences were noted between their sandwich and the character in the story?
Record answers on chart paper using the Tree Thinking Map (Attachment C) format. Note: This map is used to categorize/organize information. It would be a good idea for the teacher to make copies for the students to use prior to this lesson for their usage.

Allow students to copy on their individual copies of this attachment. Be sure to use the vocabulary from Key Concepts to familiarize students with the language that they will hear during the field trip. Suggested word list - Farm, milling, working farm, plow, irrigation, canning, vines, churn, wheat, chaff, harvest, firewood, water wheel and Industrial Revolution.

Explain to students what the tasks are to be completed after the field trip. Demonstrate the use of using the digital cameras. Provide students with copies of Attachment D as a guide for setting the tone for the visit to **The Henry Ford** sites.

Visiting the Working Farms/ Loranger Gristmill (Liberty Craftworks) Equip groups with simple disposable digital cameras (Attachment D)
Prepare students for visit by extending the lesson- review key components from previous lesson. Visits should include (Liberty Craftworks) - Loranger Gristmill, (Working Farms), Susquehanna Plantation (life at its best), Firestone Farm (changes in everyday life), Cider Mill, Soybean Lab Agriculture Gallery (changes in farming equipment) and (Porches and Parlors) Daggett Farmhouse (picking garden) Mattox Family Home (location of the grape vine)

Encourage students to ask questions, take pictures and notes for use for group presentations after the trip.

After the Visit: Discuss/answer any questions that students may have.
Allow students to convene into groups
Distribute Attachment B for clarifying the information gained during the visit-Complete with students
Explain to students that they will complete the PowerPoint (Ppt.) presentation using the group pictures and information gathered during the on-site field trip
Redistribute Attachment D for Ppt. presentations
Display rubric for Presentation Scoring (Attachment E)

Student Project Ideas: Create an Exhibit via **The Henry Ford**, Exhibit Builder site Student Group Assessment will be a PowerPoint presentation

Anticipated Challenges: Students should be able to convene into groups with specific duties to complete tasks. Modeling should take place early in the school year prior to this lesson. Students should be familiar with assigned roles that are part of cooperative/ group learning such as scribe/ writer, timer, presenter, research, roles that are needed to complete the overall project presentation or those defined by the teacher (facilitator). Students should be acquainted with the use of the Internet, computers and preparing a report via Power Point or Keynote. Additionally, students should be familiar with using a Tree Thinking Map for organizing/categorizing.

Curriculum Links: National Curriculum Standards for Social Studies Strands: I, II, IV, VII, and VIII
Michigan Social Studies Grade Level Content Expectations: H3.0.1, H3.0.2, H3.0.5, H3.0.6, H3.0.8, G5.0.1, E1.0.5

Attachment A
Let's Make a Sandwich 2010

Directions: Working with your group members, list the steps needed to create a jelly sandwich. You are asked to include the items (materials) you would need and where you would go to get them since they are not in the house or kitchen. Finally, list each step used to make the sandwich in the space provided.

Materials/Items Needed:

1._____

2. _____

3._____

4._____

5._____

6._____

Steps for Making the Sandwich

_____

_____

_____

_____

_____

_____

Attachment B
Let's Make a Sandwich 1760 Style

After your visit to **The Henry Ford**, you have learned that life in 1760 was quite different from you life today.

Directions: In your original group, you are to complete the sheet by list the steps needed to create a jelly sandwich. You are asked to include the items (materials) you would need and where you would go to get them since they are not in the house or kitchen. Finally, list each step used to make the sandwich in the space provided. If more space is required to list the materials /items needed write beneath the last number. Use the back of this sheet for additional Steps for Making the Sandwich.

Materials/Items Needed:

1._____

2. _____

3._____

4._____

5._____

6._____

7._____

Steps for Making the Sandwich

_____

_____

_____

_____

_____

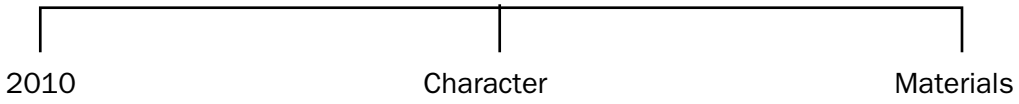
_____

_____

Attachment C
Let's Make a Sandwich

Tree Thinking Map Sample

Directions: Students should decide who did the job and what was needed to complete the job. Help them to understand that the making of a sandwich is actually a process.



Attachment D

Let's Make a Sandwich

PowerPoint Presentation Guidelines

Directions: This should be a group presentation. All members must present collaboratively. A group grade will be given. This presentation will compare two years, one the group selects and the one that the teacher assigns after the visit. The years assigned will occur between 1760 and 1960. Use the rubric to assist you in creating a great presentation. The chart below will assist you in researching, and creating the slides for your presentation.*

What processes did you need to undertake to make the jam/jelly sandwich that you are eating prior to 1860, in 1890, 1900, 1920, 1940, 1960 and today (2010)?

YEAR	EQUIPMENT REQUIRED	RAW MATERIALS	PROCESSING RAW MATERIALS	FUEL SOURCE

*Use your primary sources (pictures) that are appropriate i.e. fit the presentation.

1. Explain how the Industrial Revolution changed life from 1860-1960.
2. Select a product of the Industrial Revolution that the group feels made the biggest impact to everyone. Why?

Attachment E

Let's Make a Sandwich

RUBRICS

Group Presentation using PowerPoint

AREA	4	3	2	1
Teamwork	The workload is divided and shared equally by all team members.	The workload is divided and shared fairly by all team members, though workloads may vary from person to person.	The workload was divided, but one person in the group is viewed as not doing his/her fair share of the work.	The workload was not divided OR several people in the group are viewed as not doing their fair share of the work.
Presentation	Well-rehearsed with smooth delivery that holds audience attention.	Rehearsed with fairly smooth delivery that holds audience attention most of the time.	Delivery not smooth, but able to maintain interest of the audience most of the time.	Delivery not smooth and audience attention often lost.
Sources	Source information collected for all graphics, facts and quotes. All documented in desired format.	Source information collected for all graphics, facts and quotes. Most documented in desired format.	Source information collected for graphics, facts and quotes, but not documented in desired format.	Very little or no source information was collected.
Requirements	All requirements are met and exceeded. Includes a Title for Presentation. Used primary sources (pictures from field trip).	All requirements are met. Includes a Title for Presentation.	One requirement was not completely met. Includes a Title for Presentation.	More than one requirement was not completely met.
Originality	Product shows a large amount of original thought. Ideas are creative and inventive.	Product shows some original thought. Work shows new ideas and insights.	Uses other people's ideas (giving them credit), but there is little evidence of original thinking.	Uses other people's ideas, but does not give them credit.

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Elementary Lesson Plan 2

Carol Graham, Hometown Elementary School, Hometown, WV

Title of the Lesson: Farming at the Daggett Farmhouse

Grade Level: 4-5

Overview: Students will discover the methods of growing, harvesting and preparing crops for a typical Colonial Family during the 18th Century

Central Question: Compare and contrast the methods of growing, harvesting and preparing crops of Colonial families during the 18th Century and the methods used in the 21st Century.

Learning Objectives: 1.) to learn the types of crops that were grown by a typical Colonial family (the Daggett Family)
2.) to learn the methods of growing crops of a typical colonial family
3.) to learn about the tools and equipment used for growing, harvesting and preparing the crops for a typical Colonial family
4.) to identify the differences in growing, harvesting and preparing crops during the 18th and 21st Centuries

Assessment Tools: Participation, team cooperation, presentation and demonstration rubrics will be utilized to assess student knowledge of the learning objectives (listed above).

Evidence Sources: Pictures of the Daggett Family Home at the *Greenfield Village* (The Henry Ford)
Photos presented by Nancy Gabin (Scholar Lecture: The Henry Ford Workshop)
Readings: "More Work for Mother," (Author, Cowan Ruth Schwartz)
Maps of the Daggett Farmhouse (Materials received from the The Henry Ford workshop)

Time Frame: This lesson is designed for 1 week but can be lengthened to 1 month if preparing a garden activity is utilized as listed in the student activities below or if more in depth study is desired.

Instructional Sequence: Students examine pictures of the Daggett family home and garden in groups. Each group prepares a list of things that they see about the home and the garden. Across from each item the student briefly states what takes the place of that item in the home or garden today. Each group then presents their findings to the class.
Ask students to read "More Work for Mother," and prepare a list of activities that the mother in the family would have been responsible for during the 18th century. Then have students re-examine the list and make notes comparing and contrasting the responsibilities of 18th and 21st Centuries mothers. Present findings to the class.

Students prepare a miniature garden using the methods of gathering seeds, planting and tending to a garden as they have learned about in studying the Daggett family. Then students write about their findings about having experienced the procedures much like the Daggett family. Students present their personal stories to the class and their families.

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Elementary Lesson Plan 3

Lisa Koski, Trillium Academy, Taylor, MI

Title of the Lesson: Simple Machines in the Industrial Revolution

Grade Level: K-3

Overview: Students will learn about simple machines by viewing and discussing a PowerPoint presentation. Once introduced, the students will match photographs of machines to the simple machine vocabulary word.

Central Question: How have simple machines helped to make work easier before, during and after the Industrial Revolution?

Assessment Tools: See attached rubric and KWL chart.

Key Concepts: Simple machines, work, effort

Evidence Sources: See attached teacher-created PowerPoint and images, www.edheads.org.

Time Frame: Lesson can be taught in 3-5 30 minute sessions, not including culmination field trip to *Greenfield Village.*

Instructional Sequence: Day One: 1. As a group, fill out the "K" section in the K-W-L chart to find out what the students already know about simple machines.
2. Continue the chart into the 2nd section, the "W" to find out what they would like to learn about simple machines.
Day Two: Show and discuss teacher-created PowerPoint. Ask students to name simple machines in their home and school. Teacher may have students take notes during the presentation and discussion (see attached template).
Day Three: Students will play a matching game with photos of simple machines and vocabulary cards. The teacher may have this as a center, in which case, only one set needs to be made. Each small group needs to have their own set of cards and photos. To make the game easy, make 6 photo cards to match the 6 vocabulary cards. To make the game more difficult, make more than 6 photo cards.

Student Project Ideas: Place students in 6 groups, giving each group one photo of a simple machine. Have the students study the photo and answer the question, "How did this machine make life easier for those using it?" The students may choose to answer the question by making a poster, writing an essay or preparing a presentation. All members in the group must participate.
Use rubric for grading (http://rubistar.4teachers.org/).

Integrated Curriculum Extensions: Take students to *Greenfield Village*, giving each small group a camera. Have each group find and photograph as many different simple machines as they can. Develop the film and have the groups prepare presentations. Have students graph results of each simple machine found. Using the data, answer mathematical questions regarding the graph.

- Have the students make a timeline of the simple machine cards used in the matching game.
- Map the locations of the machines in the village used in the matching game using a map of Greenfield Village.

Anticipated Challenges: Students may have difficulty working in groups. The teacher may allow students to work independently

Curriculum Links: Michigan GLCE Science- S.IA.03.12 Share ideas about science through purposeful conversation in collaborative groups.
Common Core Curriculum- Third Grade Reading- Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). Third Grade Writing- Recall information from experiences or gather information from print and digital sources; take brief notes on sources and sort evidence into provided categories.

Simple Machine Activity

Photographs

Vocabulary Cards

*Laminate cards before using

Answers:

1. Water Pump	Lever
2. Staircase	Inclined Plane
3. Gristmill	Wheel and Axle
4. Sifter	Wheel and Axle
5. Scythe	Wedge
6. T. Edison's Lab	Pulley
7. Locomotive Wheel	Screw (look at arrow)
8. Model T	Various

Lesson plans created by participants of the 2010 NEH Landmarks of American History Workshop for School Teachers, America's Industrial Revolution, at **The Henry Ford**.

Staircase at Firestone farm

Water pump at Firestone farm

Grist mill at Greenfield Village

Sifter at Firestone Farm

2010 LMK

Locomotive wheel at the Roundhouse

2010 LMK

Model T at Ford Rouge Factory

Scythe used at Firestone Farm

Thomas Edison's Lab

Vocabulary Cards

Lever	Pulley
Wheel and Axle	Inclined Plane
Screw	Wedge

Name _____

Notes: Simple Machines

Screw	Lever
Wedge	Inclined Plane
Pulley	Wheel and Axle

Name:_____

K-W-L: Simple Machines

What do you Know?	What do you Want to learn?	What did you Learn?

Simple Machines

(n) a simple device that makes "work" easier.

Six Types:
wedge
wheel and axle
pulley
screw
lever
inclined plane

Wedge

- ***A wedge is an object with at least one slanting side ending in a sharp edge, which cuts material apart.***

Staple
Scythe
Door holder

Wheel and Axle

- *A wheel with a rod, called an axle, through its center lifts or moves loads.*

Cars
Roller Blades
bicycle

Inclined Plane

- *An inclined plane is a slanting surface connecting a lower level to a higher level.*

Bathtub
Ramp
Stairs

Pulley

A pulley is a simple machine that uses grooved wheels and a rope to raise, lower or move a load.

Gears
Flagpole

Screw

A screw is an inclined plane wrapped around a pole which holds things together or lifts materials.

Door lock
Swivel chair

Lever

A lever is a stiff bar that rests on a support called a fulcrum which lifts or moves loads.

Stapler
Seesaw

Complex Machines

- Made up of 2 or more simple machines

Stapler
Lever, wedge

Car
Pulley (seatbelt), Lever (pedal)

America's Greatest History Attraction®

Elementary Lesson Plan 4

Carla Morrin, Miller Elementary, Canton, MI
Ellen Roarty, Tonda Elementary, Canton, MI

Title of the Lesson: What do you mean there was no Target in 1760?

Grade Level: 2

Overview: Students will learn that in the past, families often had to directly use natural resources to fulfill needs, instead of making purchases from local businesses.

Central Question: How did people get goods, such as mittens, before local businesses sold them?

Learning Objectives: Students will learn that long, long ago people fulfilled wants and needs by making things with their hands in the home instead of on machines in factories and mills.

Assessment Tools: Teacher will observe how students put the pictures of making wool into mittens in order.

Key Concepts: wants, needs, past, present, natural resources, homemade, businesses, producer, consumer

Evidence/Sources: The Mitten by Jan Brett, Sequence photos for small groups, child's mitten, "From Sheep to Mittens" PowerPoint, Teacher information and photos of Daggett Farmhouse and Gunsolly Carding Mill

Duration: 1 hour session

Instructional Sequence: Start by holding up a typical store bought mitten, and ask students where it came from. On the board, have students help you compile a list of local businesses where you could purchase mittens. This could include Walmart, Target, Meijer, Kohl's, and others.

Then read the story, *The Mitten*, by Jan Brett. Explain that in this story they will learn how one boy's grandmother made his mittens and they'll also find out how "Baba's" good knitting held fast. While reading this story, you can have students make connections, if they've ever had someone make something for them to wear.

After reading the story, ask the students where they think Baba got her yarn. After they make suggestions of different stores, explain to the students that 250 years ago (you could also use the term long, long ago) not only did people knit their own mittens but that they also had to make the yarn to use in knitting.

Show students a picture of the Daggett Farmhouse and explain that this farm operates at *Greenfield Village* as it would have in 1760. Show on a United States map where the Daggett Farmhouse was located in Coventry, Connecticut. More information is included about the Daggett family that you can include in the lesson as needed. Tell students that the Daggett family raised sheep to make wool that could be spun into yarn. You can review the difference between human, natural, and capital resources and categorize sheep as a resource.

Show students the ten pictures that depict the process of making fleece into mittens. Show them that the sheep will come first and the mitten will come last and they need to try to figure out the step in between. In small groups have them try to put the pictures in sequence. In working together, students can talk about what they think as the put them order. Students are not expected to know the order yet, but to have some reasoning as to how they are completing the task.
After all the groups have completed, call students to group and use the PowerPoint "From Sheep to Mittens" to give students a more complete idea of the order of some of the steps farmers would have used to take fleece from sheep and make it usable for knitting mittens.
Discuss the differences in getting a pair of mittens now and long, long ago. Talk about where our mittens come from today in comparison with being home-made. Include information about the Gunsolly Carding Mill and how that was one step in the process in taking this work out of the home. Talk about factories as being producers of mittens and gloves and us being consumers when we purchase them.
After showing the PowerPoint, students can go back and re-order their pictures based on what they learned. If it is winter, students can examine their gloves and mittens for where they were made.
Teacher could access: A Colonial Family and Community – Meet the Daggetts – a real family who lived in northeastern Connecticut during the mid 1700's.

http://www.thehenryford.org/exhibits/smartfun/colonial/intro/intro.html

Student Project Ideas: Students could search their homes for things that are homemade and bring them to school to make a Homemade Museum. In putting the items together, students can discuss whether or not they think something is homemade and what it means to be homemade.

Anticipated Challenges: Students encounter few things in their lives that are truly homemade, so they may have little background knowledge. Teachers show things that are handcrafted, such as a scarf, purse, or pottery.

Curriculum Links: 2 – H2.0.4 Describe changes in the local community over time (e.g., types of businesses, architecture and landscape, jobs, transportation, population).
2 – E1.0.4 Describe the natural, human, and capital resources needed for production of a good or service in a community.
2 – E1.0.3 Describe how businesses in the local community meet economic wants of consumers.
2 – E1.0.5 Use examples to show that people cannot produce everything they want (specialization) and depend on trade with others to meet their wants.

Making Wool Mittens

Tend a flock of sheep

Shear the Sheep

Pick and Wash the Fleece

Carding

Wool fibers are pulled in one direction by small hand cards.

Gunsolly Carding Mill

Later machines were able to do the carding process. It carded in one day what it would take a family to do in six months. This carding mill opened in Plymouth, Michigan in 1850.

Now it's ready for spinning…

Spinning
The spinning frame twists the wool and turns it into yarn.

Winding

Yarn is put into skeins which knitters like to use.

Finishing

Natural Dyes from plants grown on the farm were used to add color.

Knitting

From sheep to mittens

America's Greatest History Attraction®

Elementary Lesson Plan 5

Glory Oljace, Pillsbury Elementary, Minneapolis, MN

Title of the Lesson: Treasured Toys

Grade Level: 2-4

Overview: Through exploration of artifacts and interviews students will discover that *favorite* toys have changed little over the years.

Central Question: How have toys changed in the past 100 years?

Learning Objectives: Students will:
Draw their favorite toy and explain why it's their favorite.
Compare their favorite toy to their classmates.
Interview relatives to discover their favorite toy.
Examine photographs for clues to favorite toys of the past and present.
Conclude that favorite toys have changed little over the years.

Assessment Tools: Teacher observation, cooperative group skills assessment, observational drawings, group presentations.

Key Concepts: How did the manufacturing of plastics, replaceable parts and outsourcing change the production of toys in the United States?

Evidence Sources: Photographs, Toys PowerPoint, Benson Ford: http://www.thehenryford.org/exhibits/collections/Collections/toys.asp
Henry Ford Toys Online: http://www.thehenryford.org/exhibits/toys/

Time Frame: 3 - 5 Days

Instructional Sequence:

Day 1: Pose the guiding question to students, record their responses on chart paper.
Have students draw or bring into class their favorite toy. Present their drawings to the class explaining their reasons for their selection.
List on chart paper students' observations of the presentation: similarities, differences, themes….
Read: **The Marvelous Toy** ISBN: 0688138799
Paxton, Tom: *A father gives to his young son the same marvelous toy that his father had given to him many years before.*
Homework: Have students ask their parents or relatives and report back to class what their favorite toy was as a child. If possible bring the actual toy or photograph of toy.

Day 2: Students share what they discovered from their relatives.
List on chart paper students' observations of the presentation: similarities, differences, themes….
Compare Day 1 and Day 2 Charts, record any themes, generalizations or observations.

Day 3: Do a *Photograph Pass* of collected photographs. Have students in cooperative groups look for clues and record observations: *How old is it? Do you think this is the child's favorite toy? What else can you tell from the photo?*
Groups present their findings to the class.
Record overlying conclusions/observations for Day 3.

Day 4: Have students in pairs go to the Henry Ford Toys website: http://www.thehenryford.org/exhibits/toys/
Have children look at the toys over the years, noticing how toys have changed and how they have stayed the same.
Extension: What would have been your favorite toy from the past? Why?
List on chart paper students' observations of the presentation: similarities, differences, themes….

Day 5: In cooperative groups, students answer the unit's guiding question, *"How have toys changed in the past 100 years?"*
Groups present their conclusions to the class.

Student Project Ideas: Toy Timelines, Toy Research, Toys iMovie, picture book, of Toys of the Past Play Day Celebration, Making Toys…..

Field Trips: Twin Cities Model Railroad Museum: http://www.tcmrm.org/
Minnesota History Museum: DIY: Makin' Monkeys: A History of Classic Toys: http://events.mnhs.org/calendar/Results.cfm?EventID=4365&bhcp=1
Hennepin County History Museum: http://hennepinhistory.org/objects.aspx

Books:
Sorting Toys **ISBN: 9789736867375** Marks, Jennifer
Science in Seconds With Toys: Over 100 Experiments **ISBN: 0471179000** Potter, Jean

Anticipated Challenges: Recording of ideas and observations, navigating the Internet, funds for field trips

Curriculum Links:

IV. HISTORICAL SKILLS A. Concepts of Time
The student will demonstrate chronological thinking.
1. Students will define and use terms for concepts of historical time.
2. Students will place events in chronological order and construct timelines.
IV. HISTORICAL SKILLS B. Historical Resources
The student will understand that we can learn about the past from different sorts of evidence.
1. Students will compare different kinds of historical sources and describe the different sorts of information the sources provide.
I. U.S. HISTORY A. Family Life Today and In The Past The student will understand how families live today and in earlier times, recognizing that some aspects change over time while others stay the same.
1. Students will compare family life in his or her community from earlier times and today.
2. Students will compare family life in at least three distant places and times.
3. Students will compare technologies from earlier times and today, and identify the impact of invention on historical change.

Treasured Toys

How have toys changed in the past 100 years?

America's Greatest History Attraction®

Elementary Lesson Plan 6

Nancy Fox, Butler Elementary, Butler, OH

Title of Lesson: The Settling of a Nation Before Industrialization

Grade Level: 3

Overview: Students will form a basis for understanding the occupations of the citizenry of America which assisted in the settlement of the United States. They will also understand the term 18th century as they explore the 1700's

Central Question: How did it all Begin? What is a Craft?

Objectives: To lay a foundation for teaching the Industrial Revolution, Students will experience writing a short report.

Assessment: Rubric for grading of student generated written report

Key Concepts: Beginning of our Nation
Land Expansion
Ownership of Property
Settling Communities
Difficulty of Labor
Desire for cheaper, quicker, easier methods of labor

Evidence/Sources: Early American Trades Coloring Book by Peter F. Copeland
www.doverpublications.com or purchase at **The Henry Ford** Cost: $3.95
Photos from *Henry Ford Museum* and *Greenfield Village*
Daggett Farmhouse Activity
www.thehenryford.org/education click on Community life

Bobbie Kalman
Home Crafts Crabtree Publishing Company 1993
The Blacksmith 2002
The Woodworker 2002
The Gristmill 1990
Tools and Gadgets 1992
The Milliner 2002

All of the above books are wonderful resources with good pictures for children and are available at
www.crabtreebooks.com
Big Book of Books and Activities by Dinah Zike
www.dinah.com
Orders 1-800-99-DINAH (993-4624)
16 word vocabulary books
Desk Top Projects on 11" x 17" paper for entire report
(Instructions for creation by students)

Duration: 8 days

Instructional Sequence: **Day 1 (25 min.)** KWL on large chart paper
What do we know about the start of America?
What would we like to know?

Day 2 (35 min.)
Vocabulary Booklet
Barter, Immigrant, Commerce, Apprentice,
Craftsman, Journeyman, Utilitarian objects
Look up terms in dictionary or encyclopedia
Create large chart paper listing of definitions
Students create flip book of words and definitions

Day 3
Letter to Parents describing written report with expectations and rubric
Assign Craft type to students
Make copies from Copeland Book
Tools are cut out and placed on colored paper with descriptions underneath
Enlarge tool key so that students can use rubber cement to name each tool
Students color Craftsman Page over next few days as time permits. Encourage students that quality work is necessary when coloring.

Day 4
Discuss difficulties of labor intensive work
Self sufficiency
Introduce Daggett Farmhouse
Daggett Farmhouse activity online at The Henry Ford
Read

Day 5
Discuss farming as chief occupation
Craftsmen were 18% of population
became aristocrats and political leaders
i.e. Ben Franklin, Paul Revere
Craftsmen create Clipper Ship, Conestoga Wagon,
Kentucky Long Rifle
Transportation and protection become common
Initiates selling and trading of labor

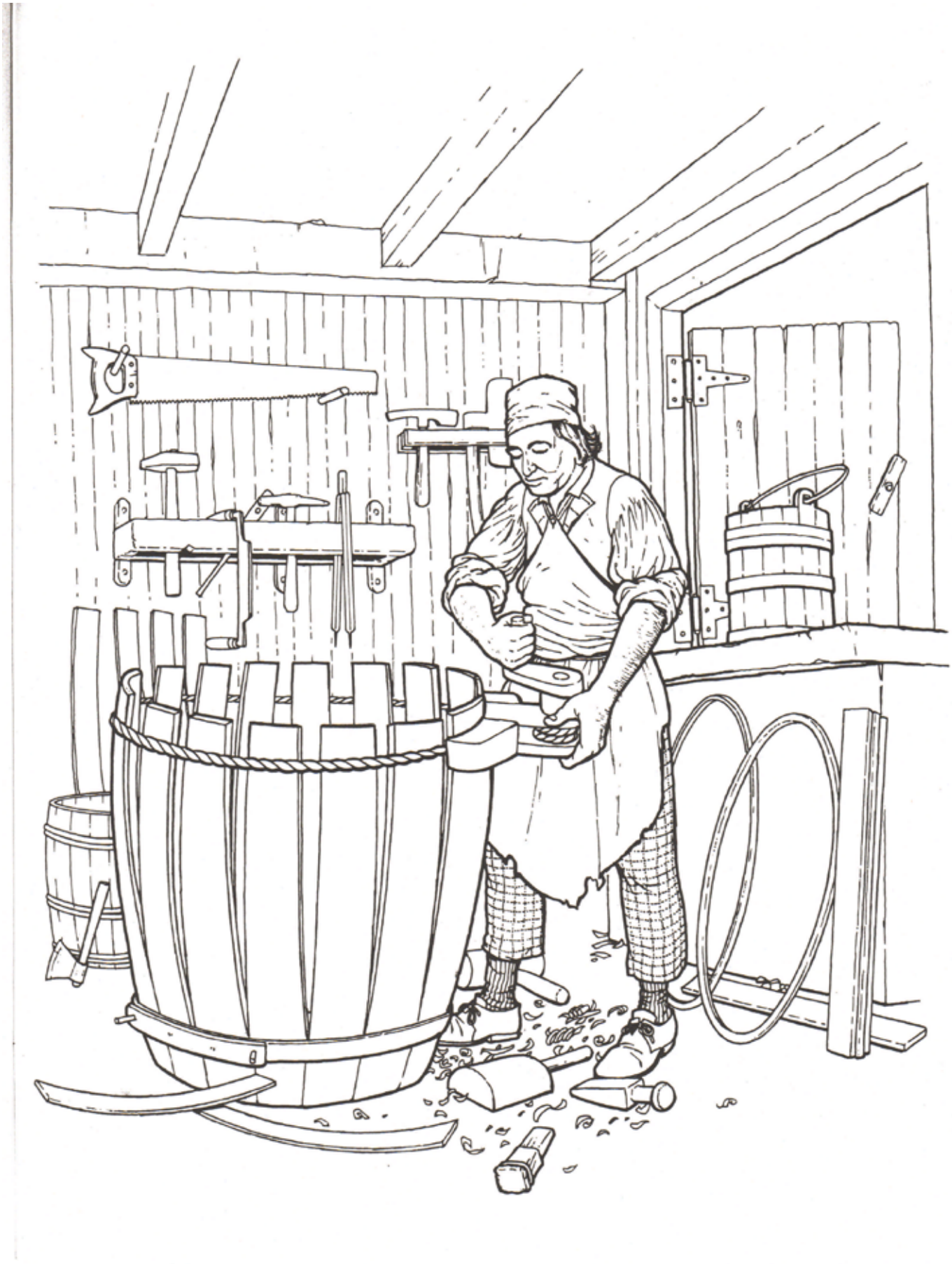
Day 6 and 7
Oral Presentation of Reports
Students create a museum by bringing items which represent the Craftsman Period
Time online- discovery of craftsman items

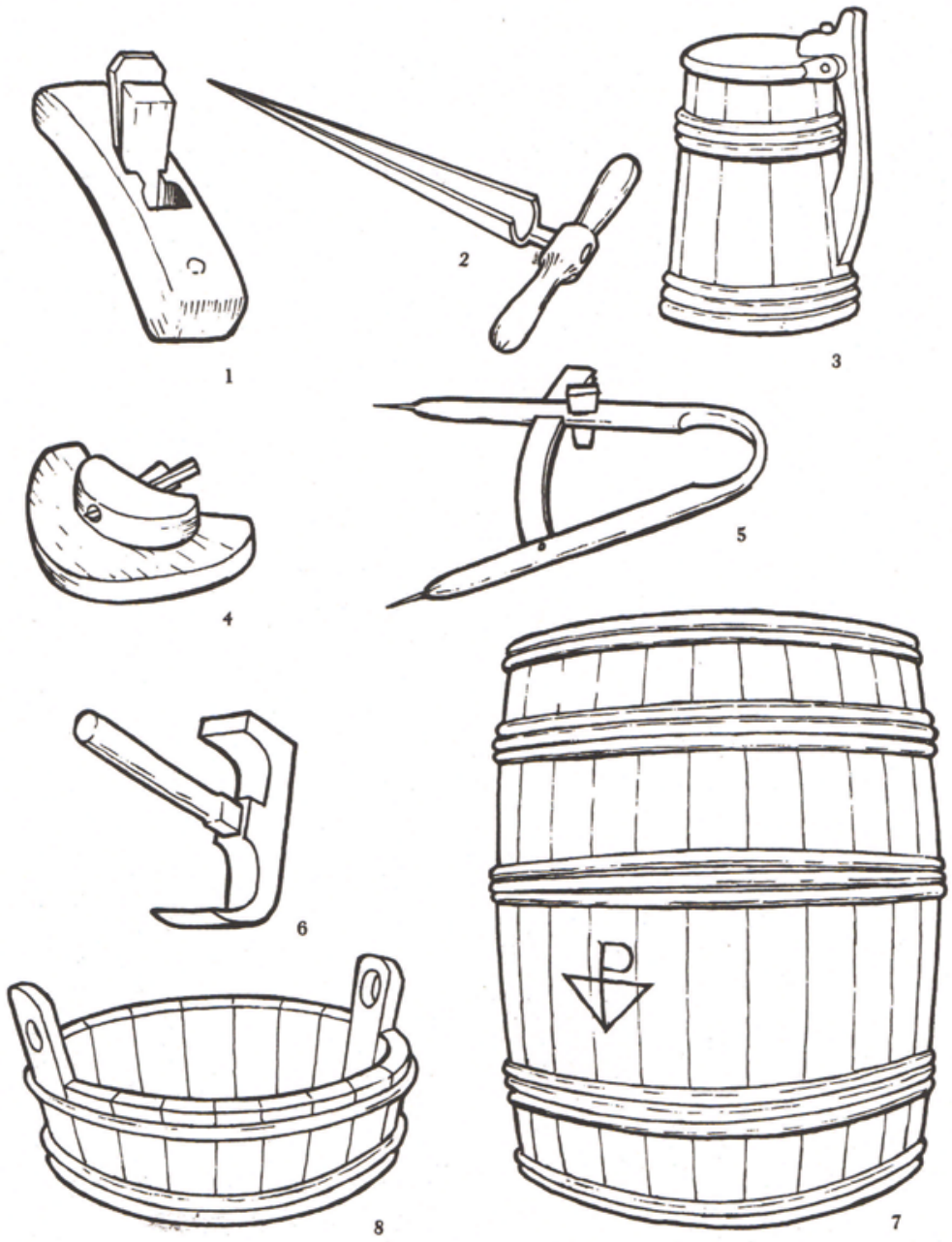
Day 8
Complete the KWL Chart
Discuss things that we learned and list them on the chart.

Anticipated Challenges: Some students may not have parental help. Find volunteer and obtain permission for student to work after school.

Curriculum Links: Social Studies Grade 3
History Benchmark A 1, 2
Benchmark C 3a,d, e, f, g
People in Societies Benchmark A 1. a., A 2.
Benchmark B Geography
Benchmark D 8. Economics
Benchmark B 2, 3, 4
Social Studies Skills& Methods
Benchmark A b., f
Math
Data Analysis And Probability 5, 7
Science
Science and Technology 1, 2, 3
Scientific Inquiry 3, 5
Language Arts
Writing Processes 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, and 16
Writing Applications 4
Research 1, 2, 3, 4, 5, 6, and 7
Communication Oral and Visual 6, 7, 8a.b.c.d.e.f.

Lesson plans created by participants of the 2010 NEH Landmarks of American History Workshop for School Teachers, America's Industrial Revolution, at **The Henry Ford**.





17. COOPER, 1818. Farmers, especially those in the South, needed millions of barrels per year to store and export crops and commodities such as flour, corn meal and molasses. This made coopering one of the most prevalent trades in pre- and post-revolutionary America. Mainly using oak, coopers made and mended barrels, kegs, buckets, tubs and tankards. There were "dry" barrels for dry goods and "wet" barrels for liquid items. The cooper seen here is assembling the staves of a barrel, preliminary to fastening the barrel together with hickory hoops. A cooper could make ten barrels per day by this method.

Above: **1.** sun plane (with a curved surface) **2.** pod auger **3.** wooden tankard **4.** croze (for cutting grooves) **5.** compass **6.** hand adze **7.** barrel (1740) **8.** keeler (1830).

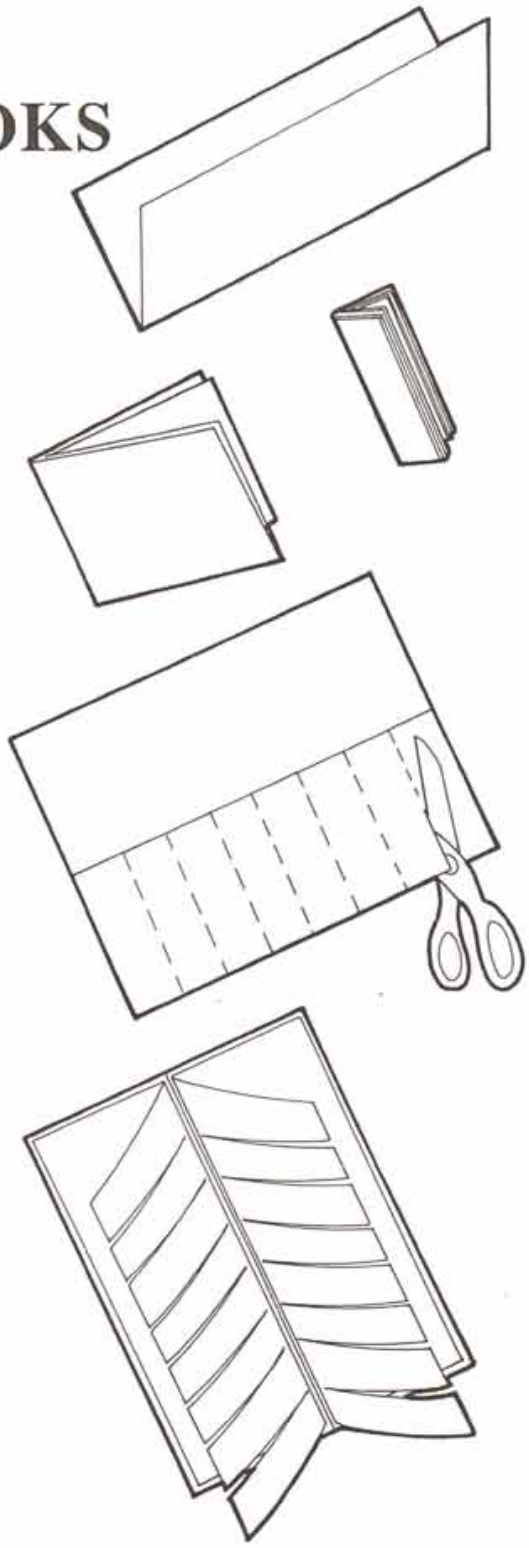
16 WORD VOCABULARY BOOKS

1. Take two sheets of paper (8 1/2" x 11") and fold each sheet like a hot dog.

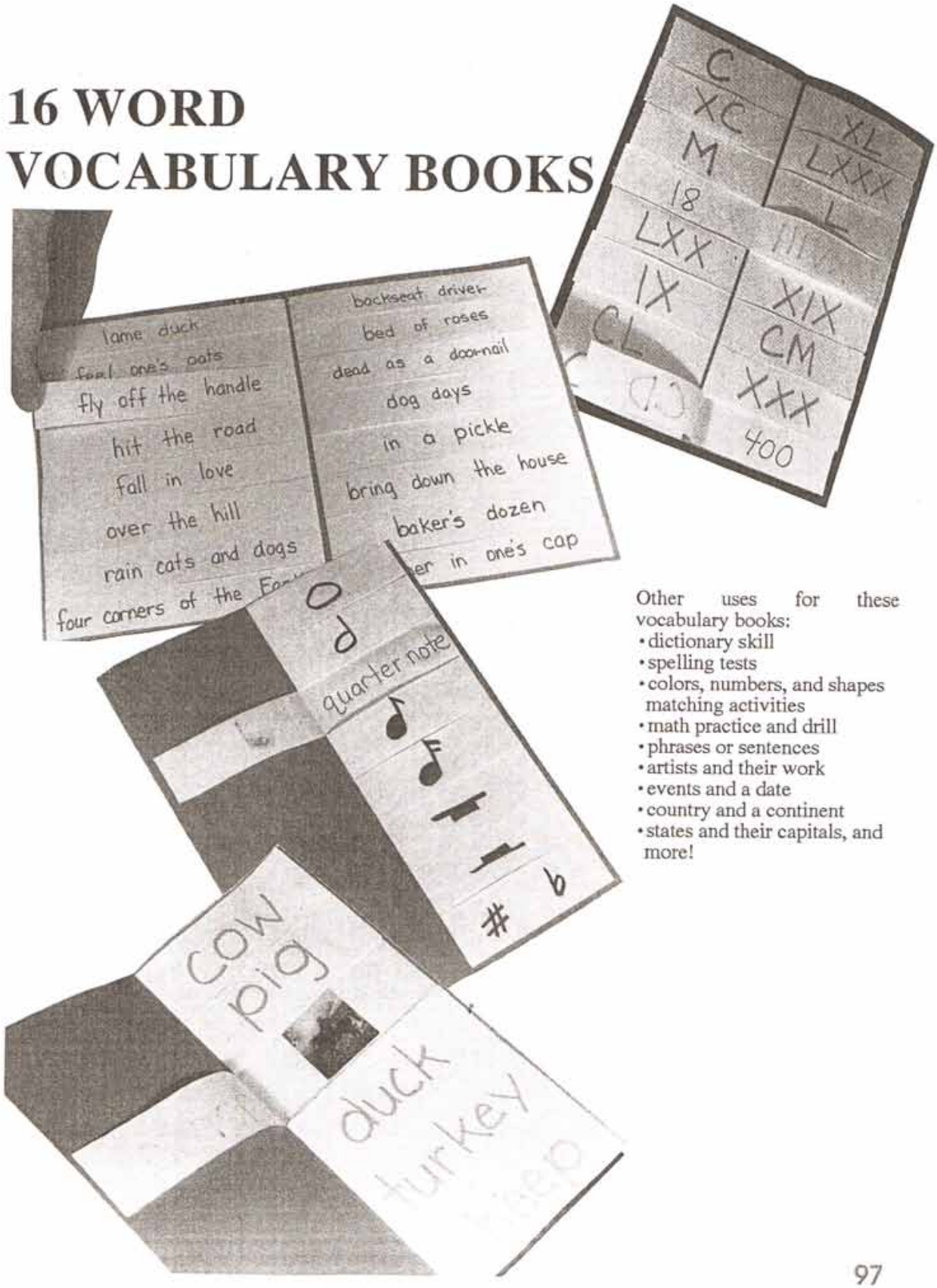
2. Fold each hot dog in half like a hamburger. Fold the hamburger in half two more times and crease well. Open up the fold, and the sheet of paper will be divided into 1/16's.

3. On one side only, cut up the folds to the mountain top, forming eight tabs. Repeat this process on the second fold.

4. Take a sheet of construction paper and fold like a hot dog. Glue the solid back side of one vocabulary sheet, to one of the inside sections of the construction paper. Glue the second vocabulary sheet to the other side of the construction paper fold. (This step can be eliminated to form a one sided vocabulary book.) Make sure the center folds of the vocabulary books meet at the center fold of the construction paper.



16 WORD VOCABULARY BOOKS



Other uses for these vocabulary books:

- dictionary skill
- spelling tests
- colors, numbers, and shapes matching activities
- math practice and drill
- phrases or sentences
- artists and their work
- events and a date
- country and a continent
- states and their capitals, and more!

Lesson plans created by participants of the 2010 NEH Landmarks of American History Workshop for School Teachers, America's Industrial Revolution, at **The Henry Ford**.

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Elementary Lesson Plan 7

Valeria Hazziez, Old Redford Academy, Redford, MI
Murcy Jones, Colin Powell Academy, Detroit, MI

Title of the Lesson: Nothing New Under the Sun (Past to Present)

Grade Level: 3-4

Overview: This unit is designed as a cross-curricular study of *A New Coat for Anna* by Harriet Ziefert. It's based on a true story that takes place after WWII. It gives students an understanding of the system of bartering and that machines have improved over the years; they get the sense that they had to start somewhere. This lesson also makes reference to other stories (*A Cloak for the Dreamer,* by Aileen Friedman and *Emperor's New Clothes,* by Hans Christian Andersen*)* that involve the making of clothing. This supplemental unit provides resources for students in third and fourth grade to understand how people acquire goods and services. More specifically, the children will learn about the process involved in making a coat, from sheep to clothing. The unit is meant to be used by the whole class or individuals. The activities may be done in any order after the story has been read.

Central Question: Who are the people that supply our needs? How can things be purchased without money? What is the process in making an article of clothing (i.e. a coat)?

Learning Objectives: Students differentiate between those things that happened long ago and yesterday. Comparing and contrasting their daily lives with those of parents and grandparents. Compare and contrast the way clothes look in the 18th and 19th century versus today. Students understand basic economic concepts and their individual roles in the economy, and demonstrate basic economic reasoning skills. The role and interdependence of buyers and sellers of goods and services. How limits on resources require people to choose what to produce and what to consume. How things can be purchased using a bartering system. Compare and contrast the stories *A New Coat for Anna & A Cloak for the Dreamer* using a Venn diagram.

Key Concepts: Sometimes other people find the things that you have are more valuable than money.
Money is not always necessary for obtaining one's needs.
Imagination can help people create beautiful and practical things.
Imagination leads us in new directions and helps us figure out how to get things.
Following your dreams can lead to adventures or a new awareness.

Evidence Sources: Textile: Field trip to *Greenfield Village* to see how cloth is made.
Read *A New Coat for Anna* and *A Cloak for the Dreamer.* (for a synopsis of *A Coat for Anna* at http://www.mpcsd.org/RSP/3rd/Money/Unit4_1.html and *A Cloak for the Dreamer* at http://www.mpcsd.org/RSP/3rd/Imagination/Unit3_3.html)
Instructor/Teacher's guidance through the lesson.
Websites to view clothing from19th century: www.gentlemansemporium.com and http://sensibility.com/vintageeimages/1800s/

Time Frame: One week

Instructional Sequence:

Activity 1: Restate Facts & Details about Sheep
Students will read factual information about sheep and write and illustrate a brief piece about what they have learned.
The Greenfield Village http://www.flickr.com/photos/maiac/35504238/in/set-779389/
Comments: Sheep in the farmyard of Henry Ford's birthplace.
Kid's Farm URL: http://www.kidsfarm.com/sheep.htm
Comments: See and hear annotated pictures of sheep.

Activity 2: Comprehend Informational Text
Students will read about weaving and then follow the instructions in "Sheep U.S.A." to weave a placemat.
Peruvian Children Weaving URL: http://www.incas.org/learn_srce.html
Comments: This is a lovely page of Peruvian children learning how to weave.
Colonial Crafts Workshop: Dyeing and Weaving Yarns
http://hastings.ci.lexington.ma.us/classroom/colonial/weaving.html
Henry Ford Website: http://www.villageweaver.com/wordpress/?p=546

Activity 3: Comprehend Informational Text
This activity will require teacher supervision. Students will read about dyeing and then demonstrate comprehension by dyeing a flattened, basket-type coffee filter with food coloring.
Tie dyeing URL: http://www.kinderart.com/textiles/easytiedye.shtml
Comments: This is a great Mining Company site about tye-dyeing.
Dyeing with Kool-Aid URL: http://www.thepiper.com/fiberart/koolaid/basic-howto.html

Activity 4: Organize Steps in Sequence
Students will read about the various steps involved in creating fabric from sheep's wool. They will then cut order and paste the steps on a student worksheet.
Cotswold Woolen Weavers
URL: http://dspace.dial.pipex.com/town/plaza/hk67/milltour.htm
Comments: This is a written tour of a nineteenth century woolen mill. The reading level may be too difficult for some 3rd graders, but should be accessible with an older student's or adult's help.
Sheet 1 and **Sheet 2**
Student's activity sheets.

Activity 5: Get parents or grandparents involved
Students will ask and answer questions of their parents or grandparents to gain knowledge of their past in comparison to their daily lives. They will inquire about how their parents or grandparents life were each day. **See attached questionnaire.**

Writing – Students will write a summary of their own daily life. What they do from the time they get up until bedtime. How different their weekdays are from their weekends. It will give them an account of how they spend their days in comparison to their parents or grandparents.

Anticipated Challenges: Students may not be able to conceive of how things were done or made long ago. Reading the story *A New Coat for Anna* takes them to a time when money was scarce and clothes were handmade and it was a process to get it done. The story will shed light on the entire process from sheep to cloth. A trip to *Greenfield Village* will bring the process to life and enable them to see what was discussed in class and learned from reading the story. Being able to see the clothes online as well as seeing how people dressed (from the visit to *Greenfield Village*) will also allow them to see the differences in how things were versus how they are today.

Curriculum Links:

Social Studies:
- Standard I.3 Analyzing and Interpreting the Past
- Standard I.2 Comprehending the Past - All students will understand narratives about major eras of American and world history.
- Standard IV.I Individual and Household Choices - All students will describe and demonstrate how the economic forces of scarcity and choice affect the management of personal financial resources, shape consumer decisions regarding the purchase, use, and disposal of goods and services, and affect the economic well-being of individuals and society.

- Standard IV.2 Business Choices - All students will explain and demonstrate how businesses confront scarcity and choice when organizing, producing, and using resources, and when supplying the marketplace.

- Standard IV.5 Trade - All students will describe how trade generates economic development and interdependence and analyze the resulting challenges and benefits for individuals, producers, and government.

Comprehension Students will…

R.CM.03.01- Connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses

R.CM.03.03 - Compare and contrast relationships among characters, events, and key ideas within and across texts to create a deeper understanding; including a narrative to an informational text, a literature selection to a subject area text, and an historical event to a current event.

R.CM.04.01- Connect personal knowledge, experiences, and understanding of the world to themes and perspectives in text through oral and written responses.

Writing Process

W.PR.03.02 - Apply a variety of pre-writing strategies for both narrative and informational writing (e.g., graphic organizers such as maps, webs, Venn diagrams) in order to generate, sequence, and structure ideas (e.g., sequence for beginning, middle, and end, problem/solution, or compare/contrast).

W.GN.04.03 - Write an informational comparative piece that demonstrates understanding of central and supporting ideas using an effective organizational pattern (e.g., compare/contrast) and informational text features.

W.PR.04.03 - Draft focused ideas using a variety of drafting techniques composing coherent and mechanically sound paragraphs when writing compositions.

Questionnaire for parents or grandparents

1. Did you have chores?

2. What kind of chores did you do? how often?

3. Did you get an allowance? If so, how much? How often?

4. What time did you get up to prepare for school?

5. What did you do when you came home from school?

6. How did you get to school?

7. What kind of clothes did you wear to school?

8. How did you spend your weekends?

9. What was your first job? How old were you?

10. How much money did you get paid?

11. How was life during your childhood days?

12. How different were your clothes from those worn today?

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Elementary Lesson Plan 8

Jan Humphrey, St. Rose Elementary, St. Rose, IL

Title of the Lesson: Inventions and Inventors

Grade Level: 1

Overview: This activity will be the first lesson to introduce students to inventions and inventors.

Central Question: What is an invention and how do inventions benefit us?

Learning Objectives: Students will understand what inventions are and create an "Invention Cube".

Assessment Tools: Class observation and a rubric for Invention Cube.

Key Concepts: Students will learn about inventions and how they affect their lives.

Evidence Sources: The Edison Papers,http://edison.rutgers.edu
www.OnInnovation.com/Edison
www.thomasedison.com

Time Frame: 1-2 class periods (25-30 minutes each.)

Instructional Sequence:

Day: 1

1. I will display various items (ex. light bulb, toothbrush, telephone, paper clip, radio) and ask the students how are these items alike. (I will accept all answers and ask students to explain why).

2. I will explain that this is an invention (if answer hasn't been given) and then talk about inventions.

3. I will give the students 5 minutes to list all the inventions they can list of and then share their lists with two other students.

4. I will show the students pictures of Thomas Edison (from the internet) and explain that he invented the electric lamp therefore he is an inventor.

5. Discuss with class what life was like before we had the electric lamp and how we use electric lamps today.

6. Read to the class the book "A Wizard from the Start: The Incredible Boyhood and Amazing Inventions of Thomas Edison" or we watch the video "The Animated Story of Thomas Edison" (P42918, www.nestlearning.com) and discuss with class.

Day: 2
Students will create an Invention Cube

1. Each student will get a cube tissue box and cover it with white construction paper.

2. Keep the opening at the bottom.

3. On side one draw a picture of an invention and label it.

4. On side two write a sentences describing or draw a picture to show life without the invention.

5. On side three write a sentence describing or draw a picture to show life with the invention.

6. On side four put your name (or collect these cubes and later on they can research their invention to find out the inventor and write the name of the inventor or find a picture of the inventor and put that on side four).

7. When completed the student will attach a string to their cube so it can be hung in the classroom.

Rubric for Invention Cube

Side One: Draw a picture or an invention and label it. (2 points)

Side Two: Write a sentence describing or draw a picture showing life without the invention. (2 points)

Side Three: Write a sentence describing or draw a picture to show life with the invention. (2 points)

Side Four: Put your name on this side or write inventor's name or have a picture. (2 points)

Neatness (2 points)

Total 10 points

Anticipated Challenges:
Students with learning disabilities may work with a partner. Also, I have given the children the choice if they are not ready/or unable to write a sentence they can draw a picture

Curriculum Links: Illinois State Goal 16: Understanding events, trends individuals and movements shaping the history of Illinois, the United States and other nations.
Standard A: Apply the skills of historical analysis and interpretation.
Standard B: Understand the development of significant political events.

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Elementary Lesson Plan 9

Linda Ruehle, Loyola Catholic School, Mankato, MN

Title of the Lesson: Simple Machines Video Clip

Grade Level: 5

Overview: After an introduction to simple machines, students will create their own video clips of simple machines at work.

Central Question: What are simple machines and how do they help you do work?

Learning Objectives: Identify the six types of simple machines.
Demonstrate how simple machines change the input and output of forces and motion.
Create a video clip.

Assessment Tools: Completed video clip, class discussion

Key Concepts: A simple machine is a machine that takes one force and changes it into a different force. Many tools and machines use one or more simple machines to complete a task.

Evidence Sources: Science textbook or other background information
Teacher demonstration video of a printing press in use in the Print Office in *Greenfield Village*.
Computers with movie making software, video and still cameras.

Time Frame: 4-5 class periods.

Instructional Sequence: Students will be introduced to the six simple machines: lever, pulley, wedge, wheel and axle, inclined plane, screw. After class discussion, students will be told that they will be creating their own video clips of simple machines in action to provide their classmates with practical examples of how simple machines affect their lives.(If students are not already familiar with the movie making software, instruction will need to take place at this time.) Students will be assigned a partner and the Simple Machines iMovie Rubric will be reviewed (see attached).The video clip of the printing press in the Print Office at *Greenfield Village* will be shown as an example of a completed project. Students will work on the videos for 2-3 class periods. If the partners have chosen a machine outside of school they may either bring the item to school to film or film on location. When the video clips are completed, the students will present their clips to the class. Information presented in the clips will be recorded in each student's science notebook.

Student Project Ideas: Variations for this project include students working as individuals or in larger groups; the class can be divided into six groups with each group assigned a particular simple machine to film; groups can also be assigned to film one example of each of the six machines.

Anticipated Challenges: Students may choose a more complex machine that incorporates many examples of simple machines. If they are having difficulty explaining all of the examples, have them focus on one or two of the simple machines. Students may need to do further research to understand how their machine/tool works. If they are uncertain how to complete a particular task when making their movie, they can review by checking an on-line tutorial such as http://www.apple.com/findouthow/movies/. The timeframe of the project may need to be adapted depending on the availability of video cameras for the class.

Curriculum Links: Minnesota Science 5.2.2.1.1. Give examples of simple machines and demonstrate how they change the input and output of the forces and motion.

Name_____

Simple Machines iMovie Rubric

Content Machine or tool demonstrated uses one or more simple Machines- not an example used in class- 15 pts.	
Correct information given- 15 pts.	
Total Points	____ 30
Technical Title of movie and your name(s)- 2 pts.	
Video or Ken Burns Effect used on still pictures- 10 pts.	
Transitions between pictures or video clips- 3 pts.	
30 sec.- 2 min. in length- 5 pts.	
Includes clear video or voiceover narration- 5 pts.	
All themes, sound effects, text, etc. used are appropriate to the topic- 5 pts.	
Total Points	___ 30

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Elementary Lesson Plan 10

Nancy Fox, Butler Elementary, Butler, Ohio

Title of Activity: Measuring with Wilbur and Orville

Grade Level: 3

Overview: Students will estimate and measure length using customary units utilizing appropriate measurement tools to measure the distance of the Kitty Hawk Flights of the Wright Brothers. This experience will deepen the meaning of the transportation story of the first flight.

Central Question: What does the distance of the first flight look like? How did Wilbur and Orville feel when they were taking their measurements?

Learning Objectives: Students will connect the use of customary units of measurement with the first flight of Wilbur and Orville Wright. Students will create a table demonstrating the progress of each of the four attempts at Kitty Hawk.

Assessment Tools: Teacher observation of groups of students as they measure distance; Students will create a table showing the first four flight distance. Students will also be tested by Accelerated Reader showing basic comprehension of the biography of the Wright Brothers.

Key Concepts: Changes in Transportation; The mind of the Inventor; The story of flight; Understanding the order of events in the Industrial Revolution.

Evidence/Sources: A Picture Book of Wilbur and Orville Wright by David Adler; photos from *Henry Ford Museum*; Curator talks at **The Henry Ford**; Pictures from Carillon Park Dayton, Ohio

Duration: 4 days allowing about 40 minutes per day

Instructional Sequence: I would teach this unit in the spring of the year after presenting earlier events in the Industrial Revolution. Students would be continually working on an ideas and invention time line throughout the year. The Adler biography would be read in guided reading groups over a 2 day period. Students would examine the picture of the floor medallion from *Henry Ford Museum*. Each student will recreate the medallion on gold paper with overall shape drawn in advance for each student. The attached pictures would be available for all students to see via large projection screen. Classroom discussion of the first four attempts at flight and the distances involved; Discussion of best methods and tools for measurement. Students will then utilize rulers, yardsticks, and tape measures to measure distances of flights. (The first flight (120') will be measured inside the building.) Guide students to the understanding that other measures will probably have to be taken out of doors. Students will record information on individual tables for purpose of assessment. Students will have previously studied the difference between a table and a graph. Students will be quizzed with the use of Accelerated Reader on the text. Flight 2-13 seconds, 195 feet, Flight 3- 15 seconds, 200 feet, Flight 4- 59 seconds, 852ft.

Student Project Ideas: Coloring page of Wilbur and Orville for use while groups are doing measurements Great Inventors and Inventions by Bruce LaFontaine, Dover Publications, Inc., 1997

Anticipated Challenges: Teacher will demonstrate use of ruler, yardstick, and tape measure; Students should monitor each other for proper technique. Allow students time to discover that the ruler and yardstick aren't suitable tools for this task. Guide students to an understanding of the amount of space needed to accomplish our task (measure desk, classroom, a car etc.)

Curriculum Links:

Social Studies

History

Place historical events in sequential order on a time line.

Describe changes in the community over time including:

technology, transportation

Math Measurement Standard

Identify and select appropriate units for measuring length.

Estimate and measure length utilizing customary units.

Science and Technology

Describe how technology can extent human abilities (to move things and to extend senses).

Describe how technology can have helpful and or harmful results.

Investigate ways that the results of technology may affect the individual, family, and community.

Scientific Inquiry

Select appropriate tools to measure and record length in customary units.

Discuss observations and measurements made by other people.

Read and interpret simple tables and graphs made by self/others.

Scientific Ways of Knowing

Explore through stories how men and women have contributed to the development of Science.

Lesson plans created by participants of the 2010 NEH Landmarks of American History Workshop for School Teachers, America's Industrial Revolution, at **The Henry Ford**.


FIRST
FLIGHT
WRIGHT BROTHERS
KITTY HAWK,
NORTH CAROLINA

America's Greatest History Attraction®

Elementary School Lesson Plan 11

Cynthia Szumlanski, Marshall Christian Academy, Albertville, AL

Title of the Lesson: Edison: Yesterday, Today, and Tomorrow

Grade Level: 4

Overview: Students will investigate yesterday's demand, today's uses and tomorrow's adaptations for Edison's inventions.

Central Question: How does practical application influence the demand for new inventions and technology?

Learning Objectives: Students will explain why one of Edison's inventions was needed or wanted by the public.
Students will explain how one of Edison's inventions has been useful to them.
Students will explain how one of Edison's inventions may be improved in the future.

Assessment Tools: Rubric

Key Concepts: Invention, Innovation, Consumer Demand

Evidence Sources: The History of the United States, ABEKA
Pretzer, William S., Working at Inventing: Thomas A. Edison and the Menlo Experience, Henry Ford Museum and Greenfield Village, 1989
Adkins, Jan, Thomas Edison, DK publishing, 2009
Paul Israel's lecture at NEH workshop
Images from **The Henry Ford** website

Time Frame: 3 days

Instructional Sequence: Teacher will instruct students on Thomas Edison's background and accomplishments. Teacher will highlight specific inventions and their uses including images of those inventions. Teacher will explain the student project.

Student Project Ideas: Students will make a presentation to the class highlighting one of Edison's inventions using the following guidelines:
Choose one of Edison's inventions and explain why you chose that invention.
Describe the invention.
Explain why people wanted or needed the invention.
Explain how invention has been improved.
Use your imagination and explain how you might improve this invention.
Include at least one visual aid in your presentation.

Anticipated Challenges: Students may have difficulty thinking outside the box in thinking of an improvement for their chosen invention.

Curriculum Links: Science: ABEKA Science 4th grade Scope and Sequence, Chapter 6, "Energy, Sound, and Hearing" History: ABEKA History 4th grade Scope and Sequence, Chapter 15, "An Age of Progress"